

Notice of Allowability

Application No.

10/752,793

Applicant(s)

CARLONE ET AL.

Examiner

Art Unit

David T. Fox

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to papers filed 17 July 2006.
2. ☒ The allowed claim(s) is/are 1-15 and 17-29 renumbered as 1-28.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 17 July 2006
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

IN THE SPECIFICATION:

On page 1, the paragraph of lines 10-12 was replaced with the following:

---This application is a continuation of U.S. Patent Application No. 09/758,802 filed January 11, 2001, now U.S. Patent 6,717,037, the contents of which are hereby incorporated by reference in their entirety.---

IN THE CLAIMS:

Claim 16 was cancelled without prejudice.

Claims 19 and 22-24 were amended as follows:

---Claim 19 (Currently amended). The maize plant of claim 11, further [defined as having] comprising a genome comprising a single gene conversion.---

---Claim 22 (Currently amended). The maize plant of claim 19, wherein the gene confers a trait selected from the group consisting of herbicide tolerance; insect resistance; resistance to bacterial, fungal, [nematode] or viral disease; [yield enhancement;] waxy starch; [improved nutritional quality;] male sterility and restoration of male fertility.

Claim 23 (Currently amended). The maize plant of claim 11, wherein said plant [is] further comprises [defined as comprising] a gene conferring male sterility.

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Claim 24 (Currently amended). The maize plant of claim 11, wherein said plant [is] further [defined as comprising] comprises a transgene conferring a trait selected from the group consisting of male sterility, herbicide resistance, insect resistance, and disease resistance.---

Authorization for this examiner's amendment was given in a telephone interview with Lila A. T. Akrad on 01 September 2006.

The following is an examiner's statement of reasons for allowance:

Applicant's response of 17 July 2006 to the Request for Information under 37 CFR 1.105 has been reviewed. The Examiner has confirmed that claims drawn to a maize seed or plant comprising at least one set of chromosomes of inbred line PH581, including F1 hybrid seed and plants, are free of the prior art. It is now considered that such claims are also adequately described, since the presence of the unique haplotype of the inbred parent may be confirmed by the use of molecular markers. It is also considered that such claims are adequately enabled, as one skilled in the art would be able to determine an optimal environment for any hybrid maize plant exhibiting a particular set of traits, and as the hybrid vigor inherent in hybrids would confer utility in any agronomic setting.

Furthermore, it is now considered that any method of using PH581 in a maize breeding process is adequately described, since the starting material PH581 is adequately described. Moreover, it is now considered that claims drawn to PH581 further comprising a transgene or conventionally introduced gene conversion are adequately described, given the availability of numerous species of the genus of

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transgenes and conventional gene conversions. It is also considered that such claims are enabled, given the knowledge by those skilled in the art that numerous transgenes and gene conversions have been successfully introduced and expressed in a variety of maize genotypes, and given the knowledge by those skilled in the art of how to backcross plants for multiple generations to reconstitute the initial recipient parent genome.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David T. Fox whose telephone number is 571-272-0795. The examiner can normally be reached on Monday through Friday from 10:30AM to 7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg, can be reached on 571-272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

September 1, 2006

DAVID T. FOX
PRIMARY EXAMINER
GROUP ~~180~~ 1638

